

REMARKS

Claims 1, 22, 30, 39, 41, 45, and 47 are AMENDED. Claims 1-47 are pending and under consideration.

REJECTION OF CLAIMS 1-38 AND 45-47 UNDER 35 U.S.C. § 102(b) AS BEING ANTICIPATED BY SAMSUNG. (Registration # 10-0200819, Korean Patent Publication # 1995-00200490)

Claims 1-38 AND 45-47 are rejected under 35 U.S.C. §102(b) as being anticipated by Samsung (Registration No. 10-0200819, Korean Patent Publication No. 1995-00200490) (hereinafter, “Samsung”) “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Furthermore, “[t]he elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Referring to the relied upon reference, Samsung relates to a method and a circuit in an optical disk system for controlling a power of a laser diode in order to control a reading/recording power of the laser diode by using recording data. The Samsung system includes a sample/hold unit that samples and holds an output of the I/V converter at the rising edge of data for a predetermined second time in the write mode, and samples and holds the output at the falling edge of data for a predetermined first time in the read mode. Samsung, Abstract, FIG. 2.

Independent claim 1 of the present application, as amended, recites, “... a sampling circuit sampling said output of said laser diode at a predetermined frequency according to a **write pulse** and generating a sampled signal ...” Thus, the output of the laser diode is sampled at a predetermined frequency according to a **write pulse** in order to generate a sampled signal.

In contrast to the present application, Samsung does not disclose a sampling circuit sampling the output of a laser diode at a predetermined frequency according to a **write pulse**. Instead, Samsung discloses sampling an electric current output from the photodiode based on positions of the recording data. In particular, Samsung discloses sampling (and holding) an output of the current-to-voltage converter at the rising edge of data for a predetermined time in the write mode and sampling (and holding) an output at the falling edge of data for a predetermined time in the read mode, wherein an edge detector unit is used to detect the rising

and falling edges of the data. Samsung, Abstract, FIG. 2.

Therefore, for at least the reasons discussed above, independent claim 1, as amended, patentably distinguishes over the reference relied upon.

The Examiner rejected independent each of independent claims 22, 30, 45, and 47 for the same reasons as independent claim 1. Each of independent claims 22, 30, 45, and 47 similarly recites sampling the output of the laser diode with a sampling frequency according to a **write pulse** to generate the sampled signal. Therefore, for at least the reasons discussed above that independent claim 1 patentably distinguishes over the reference relied upon, it is respectfully submitted that each of independent claims 22, 30, 45, and 47, as amended, also patentably distinguish over the reference relied upon.

Each of claims 2-21, 22-29, 31-38, and 46 depends from independent claims 1, 22, 30, and 45, respectively. Therefore, for at least the reasons that each of independent claims 1, 22, 30, and 45 patentably distinguishes over the reference relied upon, it is respectfully submitted that each of claims 2-21, 22-29, 31-38, and 46 also patentably distinguishes over the reference relied upon.

REJECTION OF CLAIMS 39-40 UNDER 35 U.S.C. § 102(b) AS BEING ANTICIPATED BY YAMASHITA ET AL. (U.S. Patent No. 5,111,447)

Claims 39-40 are rejected under 35 U.S.C. §102(b) as being anticipated by Yamashita et al. (U.S. Patent No. 5,111,447) (hereinafter, "Yamashita")

Referring to the relied upon reference, Yamashita relates to a pickup for a digital disc in which the elements are integrally formed on a base plate such that the incidence route from a light emitting portion to a disc can be made to be different entirely from the reflection route from the disc to a light receiving portion. Yamashita, column 3, lines 11-44.

Independent claim 39, as amended, recites: "A laser diode controlling apparatus, comprising: a laser diode generating an output; a sampling circuit sampling said output of said laser diode at a frequency according to a **write pulse**; and a controller connected with the sampling circuit to receive to receive and control said sampled output, said controller and said laser diode being included in one integrated circuit."

In contrast to the present application, Yamashita does not disclose an apparatus that samples the power output from the laser diode at a frequency according to a **write pulse** in order to control the output of the laser diode. Instead, Yamashita focuses on integrally forming the elements of the pickup onto a base plate in order to improve the characteristics of a light

transmission path. Yamashita, column 3, lines 11-44, FIG. 2. Therefore, for at least the reasons discussed above, independent claim 39, as amended, patentably distinguishes over the reference relied upon.

Independent claim 40 of the present application recites, "... both said controller and said laser diode being formed in a single body."

Yamashita does not disclose or suggest having both the controller and the laser diode formed together in a single body. Instead, as previously discussed, Yamashita discloses having a controller and a laser diode formed onto a single base plate in order to improve the characteristics of a light transmission path, in particular, to provide for a compact and simple configuration. Thus, Yamashita's requirement that the controller and laser diode be formed on a single base plate necessarily indicates that the controller and the laser diode are not formed together in a single body. Therefore, for at least the reasons discussed above, independent claim 40 patentably distinguishes over the reference relied upon.

REJECTION OF CLAIMS 41-44 UNDER 35 U.S.C. § 103(a) AS BEING UNPATENTABLE OVER YAMASHITA ET AL. (U.S. Patent No. 5,111,447)

Claims 41-44 are rejected under 35 U.S.C. §103(a) as being unpatentable over Yamashita. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). The reference must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention. Hodosh v. Block Drug Co., Inc., 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986).

If Official Notice is taken of a fact, unsupported by documentary evidence, the technical line of reasoning underlying a decision to take such notice must be clear and unmistakable. MPEP 2144.03. There must be some form of evidence in the record to support an assertion of common knowledge. See Lee, 277 F.3d at 1344-45, 61 USPQ2d at 1434-35 (Fed. Cir. 2002); Zurko, 258 F.3d at 1386, 59 USPQ2d at 1697 (holding that general conclusions concerning what is "basic knowledge" or "common sense" to one of ordinary skill in the art without specific factual findings and some concrete evidence in the record to support these findings will not support an obviousness rejection).

As previously discussed, Yamashita relates to a pickup for a digital disc in which the elements are integrally formed on a base plate such that the incidence route from a light emitting portion to a disc can be made to be different entirely from the reflection route from the disc to a light receiving portion. Yamashita, column 3, lines 11-44. The Examiner admits that Yamashita is silent about the sampling circuit. Office Action, page 3, paragraph 7.

Independent claim 41, as amended, recites, “ ... said controller comprises: a sampling circuit sampling and holding said output of said laser diode at a frequency according to a **write pulse**; ...”

In contrast to the present application, as admitted by the Examiner, Yamashita does not teach or suggest an apparatus having a sampling circuit that samples the power output from the laser diode at a predetermined frequency according to a **write pulse** in order to control the output of the laser diode. Further, the Examiner has not adequately explained or shown how it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine such a sampling circuit with the apparatus taught or suggested by Yamashita.

Therefore, for at least the reasons discussed above, independent claim 41, as amended, patentably distinguishes over the reference relied upon.

Each of claims 42-44 depends from independent claim 41. Therefore, for at least the reasons that independent claim 41 patentably distinguishes over the reference relied upon, it is respectfully submitted that each of claims 42-44 also patentably distinguishes over the reference relied upon.

CONCLUSION

In accordance with the foregoing, claims 1, 22, 30, 39, 41, 45, and 47 are amended. Claims 1-47 are pending and under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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Date: 7/1/04

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